

REMARKS

Claims 1-11 and new claims 12 and 13 are pending. The support for the amendments to the claims and new claims are as follows: claim 1: (p.33, lines 10-15); claim 6: (written in independent form); claim 7: (p.5, lines 5-8); new claim 12 (p.21, lines 5-7) and new claim 13 (p.14, lines 1-2). No new matter has been entered.

Allowable Subject Matter

Claim 6 was indicated as allowable if rewritten in independent form. Claim 6 has been written in independent form.

Claims 1-2, 4-5 and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiura et al (20040012980), hereinafter Sugiura, in view of Kindo et al (20030189401), hereinafter Kindo [sic]. (Office Action p. 2)

Claim 1 has been amended to distinguish over the Sugiura and Kido combination. Specifically claim 1 has been amended to recite the CIE chromaticity carried out in the vertical front side direction (0) of the organic light emitting device and in the direction of 45° with respect to the vertical front side direction. As recited in claim 1:

wherein $(x1-x2)^2+(y1-y2)^2$ is less than 3.1×10^{-3} , with x1 being a CIE-x value and y1 being a CIE-y value of a CIE chromaticity coordinate value when observed in a 0° direction and x2 being a CIE-x value and y2 being a CIE-y value of a CIE chromaticity coordinate value when observed in the 45° direction.

As stated on p.2 of the Office Action, “Sugiura fails to exemplify a plurality of emission layers being separated from each other by an equipotential surface forming layer...” While Kido shows more than one emission layer, the reference does not at all consider CIE chromaticity nor address the problems with multiple emission layers like optical interference, the emission spectrum and the angle dependency. As the specification states in paragraphs [0004] and [0005] of the published application:

[0004] FIG. 12 shows one example of a structure of an organic light emitting device formed as such a multiphoton device, in which a plurality of emission

layers 3 are stacked between an anode 1 and a cathode 2 in a condition where an equipotential surface forming layer 4 or a charge generating layer 4 is provided between each adjacent emission layers 3, and they are stacked on a surface of a transparent substrate 10. ...

[0005] The feature of the organic light emitting device structure resides in that; it is a thin film device having a film thickness on the order of optical wavelengths; it has a refractive index step or a reflecting surface formed by a metal surface inside the device; and it emits light from an emission layer which is a high refractive index medium. **In this structure, a phenomenon of an optical interference effect or light confinement in a high refractive index medium, such as the emission layer of an organic film, the substrate, and the electrode, by a total reflection may be occurred, and as a result, angle dependency of emission brightness and emission spectrum, film thickness dependency, and deterioration of light use efficiency are observed. This problem is occurred in the above organic light emitting device which is the multiphoton device having a plurality of emission layers. ... (emphasis added)**

The skilled artisan knows that multiple emission layers in one reference does not necessarily suggest combination with other references would be technically feasible. Assuming *arguendo* that Sugiura and Kido were combinable, the resulting teaching would be the known art, like that of FIG. 12, rather than the claimed invention. There is no suggestion that the combination of Kido and Sugiura creates a teaching free of the problems recited above. Without such a teaching the combination cannot be held to make obvious all multi-layered structures; there is no logical basis for such result.

To further distinguish from the references, claim 1 recites a measure of the CIE value being less than 3.1×10^{-3} , which is nowhere disclosed or even suggested by Kido, much less the combination of Kido and Sugiura.

Thus, claim 1 and claims dependent thereon have been distinguished from the combination of references and are not logically obvious based on any alleged teaching created by the combination.

Claims 7, 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kindo et al (20030189401), hereinafter Kindo [sic], in view of Tyan et al (20040061136), hereinafter Tyan. (Office Action p. 4)

Kido is discussed in the previous rejection. The Office Action states, "In the same field of endeavor, Tyan shows and discloses a light reflective element... in order to minimize light absorption within the device." Further, "in the combination of Kindo [sic] and Tyan distance between the light reflective element and the emission layers can be adapt to perform the claimed function." (Office Action p.5)

Basically, the rejection incorrectly assumes that "minimizing light absorption" in Tyan is the same as that claimed.

Here again, the rejection has been made in hindsight because neither of the references disclose or suggest reducing angle dependency of emission brightness and the emission color. Claim 7 has been amended to clarify "optical interference" to "reducing angle dependency of emission brightness and the emission color."

The rejection is a hindsight rejection because, among other limitations, the references cited do not actually provide any basis for overcoming the problems of a plurality of emission layers. The basis for the claimed combination comes from the instant invention itself, not a combination of art with disclosures unrelated to solving the problems of the claimed invention.

New claims 12 and 13, dependent from claim 7, further recite that the distance between the light reflective element and the emission layers is in the range of about 1 μ m to 1mm and the light reflective element is a multilayered film of a dielectric. These claims are also not obvious from the combination of references.

In light of the showing of nonobviousness based on combining Kido with Tyan, it is respectfully requested that the rejection be reconsidered and withdrawn.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 04-1105.

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Respectfully submitted,

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